

In the claims:

1. (currently amended) A sampling instrument comprising:
 - a first housing comprising a needle arranged for protrusion therefrom, said needle being adapted to draw therethrough a fluid;
 - a reagent disposed in said first housing in fluid communication with said needle, capable of producing an optically-sensible reaction with a fluid; and
 - an optical sensor disposed in said first housing adapted to sense said optically-sensible reaction; and
 - a processor in communication with said optical sensor adapted to process a signal from said optical sensor, said signal being a function of said optically-sensible reaction, wherein said processor comprises a microprocessor and a photodiode, said processor being in communication with said optical sensor by means of an optical waveguide, wherein said photodiode is adapted to convert light emission transmitted thereto from said optical waveguide to a current.
- 2-3. (cancelled)
4. (currently amended) The sampling instrument according to claim 21, wherein a first portion of said optical waveguide is connected to said optical sensor in said first housing and said processor and a second portion of said optical waveguide connected thereto is are disposed in a second housing, said first and second housings comprising mating connectors to effect the communication between said processor and said optical sensor first and second optical waveguides.
5. (original) The sampling instrument according to claim 1, wherein said first housing is disposable.
6. (currently amended) The sampling instrument according to claim 21, further comprising a fluid pump in fluid communication with said needle adapted to pump a biological fluid through said needle.
7. (original) The sampling instrument according to claim 4, further comprising a fluid pump in fluid communication with said needle adapted to pump a biological fluid through said needle, wherein said fluid pump is disposed in said second housing.
8. (currently amended) The sampling instrument according to claim 1, wherein said first housing further comprises a waste receptacle for storing therein at least one of waste products of said optically-sensible reaction and destructive fluids for neutralizing substances.
9. (original) The sampling instrument according to claim 1, wherein said needle is retractable into said first housing.

10. (currently amended) The sampling instrument according to claim 21, further comprising a display in communication with said processor.
11. (cancelled)
12. (original) The sampling instrument according to claim 1, further comprising at least one of a transmitter and a receiver for wireless communication with an external device.
13. (original) The sampling instrument according to claim 4, wherein said first and second housings together form an elongate housing.
14. (original) The sampling instrument according to claim 4, wherein said second housing is reusable.